Exhibit AB

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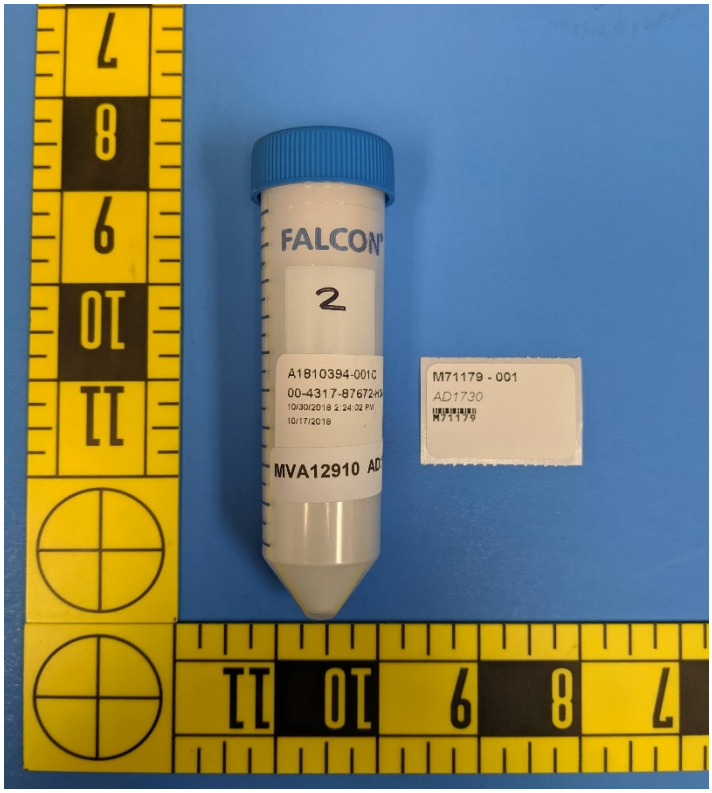
MAS Project # M71179

Chanel Supra H Retains

10/08/2020



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PROJECT SUMMARY

This report includes the results of analyses of the 18 Chanel talcum powder samples (Supra H), sourced from the Guangxi Zhzhu, China talc mine, (C-GZCM) that were submitted to MAS by MVA on 08/14/2020, and received and logged in by MAS on 8/17/2020. According to the enclosed chain-of-custody documents, these Chanel Supra H talc samples were provided to MVA by Mr. Alan Seagrave during the time he worked for BV. On 08/17/2020, the 18 sample C-GZCM containers were assigned the following MAS laboratory project identification numbers and are as follows: M71179-001 through M71179-018. Table 1 provides sample container description summary of the 18 received samples.

Table 1
Chanel Supra H Retains
Sample Description

MAS Sample No.	MVA Sample ID	BV Sample No.	Lot Number	Container Sample ID
M71179-001	AD1730	A1810394-001C	H04022-76	RM-04/17/2012 87672
M71179-002	AD1731	A1810394-002C	H12121-76	RM-04/03/2012 87496
M71179-003	AD1732	A1810394-003C	H11239-76	RM-03/09/2011 81621
M71179-004	AD1733	A1810394-004C	H11230-76	RM-03/09/2011 81615
M71179-005	AD1734	A1810394-005C	H08240-76	RM-03/09/2011 81628
M71179-006	AD1735	A1810394-006C	H06250-76	RM-03/09/2011 81622
M71179-007	AD1736	A1810394-007C	H05191-76	RM-09/20/2013 94513
M71179-008	AD1737	A1810394-008C	H11239-76	RM-01/25/2010 74696
M71179-009	AD1738	A1810394-009C	H03270-76	RM-08/12/2010 78525
M71179-0010	AD1739	A1810394-010C	H10130-76	RM-01/04/2011 80529

M71179-011	AD1740	A1810394-011C	H01211-76	RM-03/08/2011 81605
M71179-012	AD1741	A1810394-012C	H01281-76	RM-05/24/2011 82777
M71179-013	AD1742	A1810394-013C	H06031-76	RM-10/26/2011 85213
M71179-014	AD1743	A1810394-14C	H11231-76	RM-04/03/2012 87497
M71179-015	AD1744	A1810394-015C	H08022-76	RM-09/24/2012 89752
M71179-016	AD1745	A1810394-016C	H11082-76	RM-12/21/2012 90871
M71179-017	AD1746	A1810394-017C	H04223-76	RM-09/09/2013 94514
M71179-018	AD1747	A1810394-018C	H04223-76	RM-05/20/2013 92890

OVERVIEW

This report provides the analytical results for our chrysotile analysis of Chanel's 18 Supra H talc sample retains that were sourced from the Guiguang Zhzhu, China mine. This analysis was done using both the IS0-22262-1 PLM method for chrysotile, without heavily liquid separation (HLS), and the Colorado School of Mines (CSM) PLM method for chrysotile with HLS. The CSM-PLM method was implemented at MAS in January of this year. [1,2]

Overview of Results

The ISO 22262-1 (w/o HLS) method for chrysotile showed that all 18 samples analyzed were positive for chrysotile asbestos at an estimated volume weight concentration range of between 0.007 to 0.02 %.

For the PLM-CSM method for chrysotile, all 18 samples were found to be positive for chrysotile asbestos. The estimated chrysotile weight percent (recovery weight corrected) for the 18 C-GZCM talc samples was between 0.001 to 0.004 % by volume weight estimation.

[1] Colorado School of Mines Research Institute February 26, 1973 Report Re: Mineralogical Examination of Five Talc Samples to W.H. Ashton from W.P. Reid and W.T. Caneer.

[2] Colorado School of Mines Research institute April 2, 1973 Report re: Mineralogical Examination of Four Samples for Tremolite and Chrysotile from W.P. Reid to W.H. Ashton.

MATERIALS & METHODS

Guiguang Zhzhu, China-Sourced Samples Containers

After the 18 C-GZCM talc samples were logged in at MAS, they were transferred to the cosmetic talc archive room where all 18 sample containers were photographed in their received condition. The received Chain-of-Custody documents can be found in Section 2 of this report. Photographs of the 18 C-GZCM sample containers can be found in Section 21 of this report.

Muffle Furnace

For this procedure, approximately 1 to 2 grams of the C-GZCM talcum powder (Sartorius Research Balance) was removed from each of the 18 C-GZCM containers and placed in separate 12 ml glass scintillation vials. The 18 scintillation vials were then placed in a Fisher Scientific Iso-temp muffle furnace Model #620 at 400^{o}F for a minimum of 4 hours to remove any organic material.

PLM - ISO 22262-1 Method (w/o HLS Sample Preparation) for Chrysotile Asbestos

Approximately 100 milligrams from each of the 18 muffled C-GZCM talcum powder samples were analyzed by the ISO 22262-1 PLM method.[3] Before each of the talcum powder samples were placed on the glass slides, each of the glass slides were first weighed and the initial weight was recorded. The three talcum powder mounts were placed on the two weighed glass slides then reweighed and the weight recorded. A drop of the 1.550 refractive index fluid was then placed onto each of the three C-GZCM mounts, stirred with the point of a scalpel blade and then covered with an 18 x 18 mm glass cover slip. The samples are examined under elongation PLM conditions, cross polar with a 530 nm analyzer plate inserted. 30 total fields per field of view (a single PLM field of view has an area of 3.02 mm$^{2)}$ are examined (10 fields of view for each of the three mounts) for a total area examined of 90.6 mm^2.

Positive identification of chrysotile asbestos bundles was done by morphology, refractive indices, elongation, angle of extinction, birefringence and pleochroism as described by the ISO 22262-1 PLM method. [4]

If samples are positive for regulated chrysotile structures, a visual estimation of the quantity of chrysotile observed was based on visual calibration through review of Calidria chrysotile spiked JBP

[3] ISO 22262-1: 2012E Air Quality Bulk Materials Part 1: Sampling and Qualitative Determination of Asbestos in Commercial Buk Samples.

[4] ISO 22262-1: 2012E Air Quality Bulk Materials Part 1: Sampling and Qualitative Determination of Asbestos in Commercial Buk Samples.

talcum powder, which were MAS lab generated weight percent standards, using Calidria chrysotile. If required, visual calibration can be augmented by the use of area percent charts.

In each field of view, the PLM analyst will count the number of chrysotile structures positively identified by the above criteria if present, and record those on the MAS PLM data sheet.

If chrysotile is present in the sample, up to four representative chrysotile bundles are photographed in both the parallel and perpendicular direction under dispersion staining, elongation, cross polars and with polarizers out.

The detection limit for this method, as specified by the ISO 22262-1 method, is the findings of either 1 fiber or 1 bundle in the analysis.

PLM - ISO 22262-1 Method (w/o HLS Sample Preparation) for Fibrous Talc Analysis

The ISO 22262-1 PLM slides that were prepared for the chrysotile analysis were also used to identify representative talc fibers from each of the 18 C-GZCM samples. For each C-GZCM talc sample, one representative talc fiber was identified by morphology, refractive indices, elongation, and birefringence calculations as described by both the ISO 22262-1 and EPA-R93 PLM methods. Photographs of the parallel and perpendicular direction under dispersion staining and elongation are recorded.

CSM/HLS PLM Method

Approximately 200 grams from each of the 18 C-GZCM talcum powder samples, were transferred to 15 ml centrifuge tubes (VWR 10026-076). Approximately 15 ml of HL Lithium heteropolytungstates solution, GeoLiquids, Inc., Cat. No. LST010 with a stated density 2.82 g/cc, was first diluted with distilled water to a density of 2.72 g/cc as determined by a VWR Hydrometer, model number 34620-1109, was added to each of the VWR centrifugation tubes containing the C-GZCM talc powder sample and mixed with a disposable mixing rod for 10 to 20 seconds. The combined talc and HL (density 2.72 grams/cc) centrifugation sample tubes were then placed into a vacuum desiccator (JEOL EMDSC-U10A) to remove air bubbles for 3 minutes at a pressure of approximately 8 torr prior to centrifugation.

The VWR centrifugation tubes were then placed in an Ohaus Frontier 5000 series centrifuge set at 500 RPM for total of 10 minutes at room temperature without braking, once the centrifuge comes a full stop, the RPM's are reset to 1800 for 10 minutes without braking. After removal of the VWR centrifugation tubes from the centrifuge, the bottom heavy mineral pellet is flash frozen in liquid nitrogen and the supernatant (light minerals/heavy liquid) is decanted on to a new 47 mm MCE (0.4 micron pour size) filter then washed with approximately 15 ml distilled water. This step was repeated two more times. The final MCE filter is allowed to dry for 20 to 30 minutes. After drying, the 18 C-GZCM talc samples are provided to the PLM analyst.

Three mounts each of the talcum powder sample was placed on two glass slides, a drop of the 1.550 refractive index fluid is placed onto each of the 18 C-GZCM talcum powder mounts, stirred with the point of a scalpel blade and then covered with an 18 x 18 mm glass cover slip. The samples are examined under elongation PLM conditions, one polar with a 530 nm analyzer plate inserted. 30 total fields of view are examined (10 fields of view for each of the three mounts) for a total area examined of 90.6 mm^2.

Positive identification of chrysotile asbestos bundles was done by morphology, refractive indices, elongation, angle of extinction, birefringence and pleochroism as described by the ISO 22262-1 PLM method. [5]

If samples are positive for regulated chrysotile structures, a visual estimation of the quantity of chrysotile observed was based on visual calibration through review of Calidria chrysotile spiked C-GZCM talcum powder, which were MAS lab generated weight percent standards, using Calidria chrysotile. If required visual calibration can be augmented by the use of area percent charts.

In each field of view if chrysotile is present, the PLM analyst will count the number of chrysotile structures positively identified by the above criteria and record those on the MAS PLM data sheet.

If chrysotile is present, up to four representative chrysotile bundles are photographed in both the parallel and perpendicular direction under dispersion staining, elongation, cross polars and with polarizers out.

The detection limit for this method, as specified by the ISO 22262-1 method, is the findings of either 1 fiber or 1 bundle in the PLM analysis.

RESULTS

ISO 22262-1 PLM Analysis (without Heavy Liquid Separation) for Chrysotile Asbestos

The ISO 22262-1 (w/o HLS) showed that all 18 C-GZCM talcum powder samples analyzed were positive for chrysotile asbestos at a volume estimated weight concentration range of 0.007 to 0.01 %. Fibrous talc was found in each of the 18 samples at a qualitative estimated concentration range of trace. For the chrysotile asbestos detected in the 18 C-GZCM samples, the range of measured refractive index valves and the calculated birefringence values were recorded for all 18 positive chrysotile samples. The average birefringence of the chrysotile bundles was calculated from the refractive index measurement and found to be 0.011 which is classified as at low end of "Moderate". A summary of the refractive index ranges and calculated birefringence values for the

[5] ISO 22262-1: 2012E Air Quality Bulk Materials Part 1: Sampling and Qualitative Determination of Asbestos in Commercial Buk Samples.

chrysotile asbestos and are shown in Table 3 to this report. The ISO-PLM data sheets and photographs of the four representative chrysotile bundles for of the 18 C-GZCM talc samples, can be found in Sections 3 through 20 to this report.

ISO 22262-1 PLM Analysis without Heavy Liquid Separation for Fibrous Talc

The fibrous talc from each of the 18 C-GZCM samples showed that the birefringence measurements from the measured refractive indices (RI) in dispersion staining for both the parallel and perpendicular angles was 0.048 that is classified at the high end of Moderate (w/o intergrowths). A summary of the refractive index and calculated birefringence values are provided in Tables 3 and 4 to this report. These results show that all the C-GZCM talcum powder samples contain a significant amount of fibrous talc. PLM photographs of the fibrous talc structures can be found in Section 22 of this report.

CSM-PLM Analysis with Heavy Liquid Separation (Chrysotile Asbestos)

For the CSM-PLM method, all 18 C-GZCM talc samples were found to be positive for chrysotile asbestos. The estimated chrysotile weight percent (recovery weight corrected) for the 18 C-GZCM talc samples was between 0.001 to 0.005% by volume weight estimation. The average birefringence of the chrysotile bundles was calculated from the refractive index measurement and found to be 0.011 which is classified at the low end of "Moderate".

The summary of the refractive index and calculated birefringence values are shown in Table 4. The CSM-PLM data sheets and photographs of the four representative chrysotile bundles, for of the 18 C-GZCM talc samples, can be found in Sections 3 through 20 to this report.

A summary of all the analytical data is shown in Table 2.

Table 2
Overall Summary of Chanel Guiguang Zhzhu, China Mine Source Sample Analysis Results

MAS Sample #	MVA Sample #	PLM w/o HLS Chrysotile %	Weight Recovery CSM	CSM-PLM with HLS chrysotile %
M71179-001	AD1730	0.008-0.01	20.9 %	0.002-0.003*
M71179-002	AD1731	0.009-0.01	24.9%	0.002-0.003
M71179-003	AD1732	0.009-0.02	20.6%	0.002-0.005
M71179-004	AD1733	0.009-0.02	22.8%	0.002-0.005
M71179-005	AD1734	0.008-0.01	19.4%	0.002-0.004
M71179-006	AD1735	0.009-0.015	20.5%	0.002-0.004
M71179-007	AD1736	0.007-0.01	19.1%	0.001-0.002

M71179-008	AD1737	0.007-0.01	19.6%	0.001-0.002
M71179-009	AD1738	0.008-0.01	15.0%	0.001-002
M71179-010	AD1739	0.007-0.01	17.3%	0.001-0.002
M71179-011	AD1740	0.008-0.01	20.9%	0.002-0.003
M71179-012	AD1741	0.007-0.01	22.1%	0.001-0.002
M71179-013	AD1742	0.008-0.01	21.8%	0.002
M71179-014	AD1743	0.007-0.01	29.2%	0.003
M71179-015	AD1744	0.008-0.01	16.1%	0.001-0.002
M71179-016	AD1745	0.008-0.01	13.9%	0.001
M71179-017	AD1746	0.009-0.01	15.7%	0.001-0.002
M71179-018	AD1747	0.007-0.009	18.5%	0.001

*Chrysotile weight concentrations recovery corrected

Table 3
Overall Summary of Chanel Guiguang Zhzhu, China Mine Source Calculated
BIR Fibrous Talc and Chrysotile
ISO-PLM Data
(RI Fluid 1.550)

MAS Sample #	RI Talc fibers Parallel/ Perpendicular Direction Values	Birefringence Calculation & Classification for Fibrous Talc		Chrysotile RI Index ISO-PLM	Birefringence Calculation & Classification for Chrysotile Asbestos
M71179-001	1.595-1.542	0.053		1.567-1.552 1.566-1.551	0.007-0.015 Avg.=0.010
M71179-002	1.595-1.542	0.053		N/A * 1.561-1.549	0.012
M71179-003	1.590-1.543	0.047		1.567-1.552 1.563-1.550	0.013-0.015 Avg.=0.014
M71179-004	1.595-1.538	0.058		1.568-1.552 1.563-1.550	0.013-0.016 Avg.=0.0145
M71179-005	1.590-1.540	0.050		1.569-1.561 1.559-1.549	0.008-0.010 Avg.= 0.009
M71179-006	1.590-1.542	0.048		1.568-1.552 1.557-1.551	0.006-0.014 Avg.=0.010

M71179-007	1.590-1.540	0.060		1.568-1.554 1.552-1.538	0.012-0.014 Avg.=0.013
M71179-008	1.590-1.545	0.045		1.567-1.561 1.551-1.548	0.003-0.006 Avg.=0.0045
M71179-009	1.5951.543	0.052		1.567-1.556 1.558-1.551	0.007-0.011 Avg.=0.009
M71179-010	1.590-1.540	0.050		1.567-1.553 1.561-1.551	0.010-0.014 Avg.= 0.012
M71179-011	1.595-1.543	0.052		1.568-1.554 1.556-1.550	0.006-0.012 Avg.= 0.009
M71179-012	1.590-1.555 1.590-1.548	0.040-0.042 0.041		1.568-1.556 1.559-1.550	0.009-0.012 Avg.= 0.0105
M71179-013	1.575-1.549	0.036**!**		1.569-1.559 1.558-1.545	0.010-0.013 Avg.= 0.012
M71179-014	1.590-1.541	0.049		1.567-1.553 1.562-1.551	0.011-0.014 Avg.= 0.0125
M71179-015	1.595-1.550 1.569-1.543**!**	0.026-0.045**!** avg.=0.036		1.567-1.555 1.561-1.551	0.010-0.012 Avg.= 0.011
M71179-016	1.590-1.545	0.045		1.567-1.559 1.552-1.546	0.006-0.008 Avg.= 0.008
M71179-017	1.590-1550 1.571-1.543**!**	0.028-0.050**!** Avg.=0.039		1.567-1.557 1.562-1.549	0.010-0.013 Avg.= 0.012
M71179-018	1.588-1.538	0.050		1.567-1.552 1.565-1.550	0.015

*****Brucite/Chrysotile intergrowth basis refractive indices to higher value

! Talc fiber/chrysotile intergrowth bias refractive indices to lower value

Avg. BIR Talc Fibers (w/o) intergrowths = 0.048 Avg. BIR Chrysotile = 0.011

Avg. BIR Talc Fibers (with) intergrowths = 0.046

Table 4
Overall Summary of Guiguang Zhzhu, China Mine Source Calculated
BIR Fibrous Talc and Chrysotile
CSM-PLM Data
(RI Fluid 1.550)

MAS Sample #	RI Talc fibers Parallel/ Perpendicular Direction Values	Birefringence Calculation & Classification for Fibrous Talc		RI Chrysotile Parallel/ Perpendicular Direction Values CSM-PLM	Birefringence Calculation & Classification for Chrysotile Asbestos
M71179-001	1.595-1.542	0.053		1.567-1.552 1.566-1.551	0.015

M71179-002	1.595-1.542	0.053		1.568-1.553 1.566-1.552	0.011-0.014 0.0125
M71179-003	1.590-1.543	0.047		1.567-1.559 1.563-1.552	0.011-0.012 Avg.=0.0115
M71179-004	1.595-1.538	0.058		1.567-1.553 1.566-1.551	0.014-0.015 Avg.=0.0145
M71179-005	1.590-1.540	0.050		1.568-1.553 1.561-1.549	0.012-0.015 Avg.= 0.0135
M71179-006	1.590-1.542	0.048		1.567-1.553 1.565-1.549	0.014-0.016 Avg.=0.015
M71179-007	1.590-1.540	0.060		1.566-1.553 1.565-1.551	0.012-0.015 Avg.=0.0145
M71179-008	1.590-1.545	0.045		1.567-1.560 1.557-1.551	0.006-0.007 Avg.=0.0055
M71179-009	1.5951.543	0.052		1.567-1.559 1.557-1.552	0.005-0.008 Avg.=0.0065
M71179-010	1.590-1.540	0.050		1.568-1.552 1.567-1.551	0.016
M71179-011	1.595-1.543	0.052		1.566-1.552 1.560-1.551	0.009-0.014 Avg.= 0.0115
M71179-012	1.590-1.555 1.590-1.548	0.035-0.042 0.039		1.567-1.552 1.557-1.550	0.007-0.015 Avg.=0.0135
M71179-013	1.575-1.549	0.036		1.567-1.552 1.563-1.551	0.012-0.015 Avg.=0.0135
M71179-014	1.590-1.541	0.049		1.568-1.557 1.562-1.551	0.011
M71179-015	1.595-1.550 1.569-1.543	0.026-0.045 avg.=0.036		1.568-1.552 1.562-1.551	0.011-0.016 Avg. 0.0135
M71179-016	1.590-1.545	0.045		1.567-1.559 1.552-1.546	0.008
M71179-017	1.590-1550 1571-1.543	0.028-0.050 Avg.=0.039		1.568-1.553 1.558-1.551	0.005-0.007 Avg.= 0.006
M71179-018	1.588-1.538	0.050		1.567-1.554 1.567-1.551	0.013-0.016 Avg.= 0.0145

Avg. BIR Talc Fibers (w/o) intergrowths = 0.048 Avg. BIR Chrysotile = 0.011
Avg. BIR Talc Fibers (with) intergrowths = 0.046

DISCUSSION/CONCLUSION

ISO-22262-1 PLM Analysis without Heavy Liquid Separation

The ISO-PLM analysis performed by MAS on the 18 C-GZCM talc samples, showed that all 18 samples were positive for chrysotile asbestos, without heavy liquid separation. Even though the ISO-PLM method does not use heavy liquid, the chrysotile concentration was high enough to be detected by this method.

As stated above in this report, 1.550 RI fluid was used for the analysis to identify chrysotile asbestos, instead of 1.650 that is used for our amphibole asbestos (tremolite & anthophyllite). The reason for this is that our experience has shown that the Chinese talcum powder has very low amounts of amphibole asbestos, as compared to other cosmetic talc mines, at concentrations that cannot be detected with the ISO-PLM method.

However, these results show that the ISO-PLM method, using 1.550 RI fluid, is sensitive enough to detect chrysotile bundles in C-GZCM sourced talc, if the PLM analyst has the proper training with the right type of chrysotile standard and the right modifications of your standard PLM microscope.

Colorado School of Mines (w HLS) for the Detection of Chrysotile

This analysis is based, for the most part, on the work done by the CSM in the early 1970's. The CSM-PLM method determined that all 18 of the C-GZCM samples were positive for chrysotile.

For this analysis, no iodine staining was done since it was determined that because of the size of the chrysotile bundles in both the Calidria standards and the Chinese sourced talcum powder, they are not large enough to be absorbed with enough of the iodine stain, like it does for NIST 1866b chrysotile standard, to make them visible in the optical microscope. The iodine staining was only used to facilitate the PLM analysis for chrysotile, not for any identification purposes. Since the staining procedure did not work for this size of chrysotile bundles found in Chinese-sourced talcum powder, there was no analytical reason to keep using it.

For CSM-PLM analysis, the estimated volume weight percent range was 0.001 to 0.005 %. This is approximately 5 times lower than the estimated volume weight percent found for the ISO-PLM chrysotile results. Since the CSM method uses HLS, it would have been expected that the CSM method results to have higher chrysotile concentrations than what was found in the ISO-PLM analysis.

The potential reasons for the difference maybe two fold, 1) that the heavy liquid density used for CSM method still may not be optimized yet. For these analyses, a density of 2.72 g/cc was used, a lower HL density of 2.65 to 2.69 g/cc maybe required, and or 2) the centrifuge time may need to be increased, as well the RPM level. Hopefully, future research may answer this question.

Chrysotile Refractive Index Range

As shown in Tables 3 & 4 for the 18 C-GZCM samples, the range of measured refractive indexes for the detected chrysotile was 1.569 to 1.538 (ISO-PLM), and 1.568 to 1.546 (CSM-PLM) are in good agreement with the reported refractive index chrysotile ranges reported by both Drs. McCrone and Su in their past publications. Their published chrysotile IR ranges are as follows:

In Dr. Walter McCrone's 1974 article, "Detection and identification of Asbestos by Microscopic Dispersion" published in Environmental Health Perspective, Vol 9. On page 58, Figure 1, Dr. McCrone gives a refractive index range for chrysotile, in 1.550 liquid, of 1.548 to 1.570 in the parallel direction and 1.534 to 1.553 in the perpendicular direction.

Dr. Shu-Chun Su, published in 2003 a document entitled "Rapidly and Accurately Determining Refractive Induces of Asbestos Fibers by Using Dispersion Staining Method. On page 7, Table 4A shows the range of refractive indexes of chrysotile in 1.550 liquid. On Table 3, Dr. Su reports refractive index ranges of 1.556 to 1.565 in the parallel direction and 1.546 to 1.553 in the Perpendicular direction for NIST 1866 chrysotile standard. On Table 4, Dr. Su gives the full range potential ranges of refractive indexes for chrysotile asbestos at various room temperatures.

At a room temperature of 21°C to 23°C (70 F to 73 F), Dr. Su gives the refractive index ranges for chrysotile as high as 1.580 and as low as 1.540 in the parallel direction, and for the perpendicular direction, the Su table reports a refractive index range as high as 1.579 and as low 1.541.

These reported chrysotile refractive index ranges for chrysotile, in 1.550 RI fluid, by two of the leading experts in PLM dispersion staining analysis, clearly shows that the MAS chrysotile findings were in good agreement for the RI range. This comparison can be seen in Table 5.

Table 5
Comparison of Chrysotile Measured Refractive Indexes Between MAS, Dr. McCrone and Dr. Su

	Refractive Index Range Parallel	**Refractive Index Range Perpendicular**
MAS	1.568 to 1.546 ISO 1.569 to 1.551 CSM	1.559 to 1.549 ISO 1.560 to 1.546 CSM
Dr. McCrone	1.570 to 1.548	1.553 to 1.534
Dr. Su	High to Low Range 1.580 to 1.540	High to Low Range 1.579 to 1.541

Birefringence Measurements

The key optical property to differentiation fibrous talc from chrysotile asbestos, when using the PLM method, is by determining the difference in the birefringence (BIR) value between these two elongated minerals. Most PLM analysts will just use the PLM cross-polar condition to visually estimate the magnitude of the BIR (Low, Moderate or High) by the amount of brightness observed. This visual estimate for the amount of birefringence is a subjective interpretation by the PLM analysts and, therefore, can lead to errors. A more accurate determination BIR is to calculate the numerical BIR value by simply subtracting the measured perpendicular RI from the measured parallel RI (n ‖ - n _|_).

The subtracted BIR results give you a numerical birefringence (BIR) value that is either classified as **Low (<0.01)**, **Moderate (0.01 to 0.05)** and **High (>0.05)**. For fibrous talc and talc plates on edge will have a calculated BIR value that is typically greater than 0.05 which is in the High range. Chrysotile on the other hand, will have BIR values that range from the upper end of Low to the lower end of the Moderate range.

In Tables 3 & 4, our ISO-PLM (Table 3) and CSM-PLM (Table 4) analysis for analysis for the calculated BIR values are shown for both the fibrous talc (Tables 3 & 4) and chrysotile asbestos detected in the 18 C-GZCM talc samples were as follows:

Fibrous Talc: The average BIR value for the 15 fibrous talc sample analysis was calculated at **0.048** (without the talc/chrysotile intergrowths used in the calculation). The intergrowth talc/chrysotile fibers with bias the RIs to lower BIR values. For that reason, they were not used for the overall BIR averages.

It was also interesting that there was such a high level of talc/chrysotile intergrowths in these samples as compared to past analysis of C-GZCM talc samples.

Chrysotile: Using RI Fluid 1.550, the overall calculated average BIR value for the 18 C-GZCM samples chrysotile bundle analysis was calculated to be **0.011** for the ISO-PLM and **0.011** for the CSM method.

This significant BIR value difference between the fibrous talc and chrysotile clearly shows that the fibrous talc in the 18 C-GZCM talc samples was not misidentified as chrysotile by MAS, as proven by the BIR ranges for these two fibrous minerals.

This significant BIR difference between fibrous talc and chrysotile, as demonstrated by MAS, is also verified by the EPA in their 600/R-93/116 PLM methodology document as shown in Table 2-2, page 21.

Table 2-2, "Optical Properties of Asbestos Fibers", provides four sets of refractive indexes measured from chrysotile bundles (NIST 1866 chrysotile standard) that has an overall average BIR of 0.011. This is in good agreement with the overall MAS BIR avg. of 0.011 for the chrysotile detected in the 18 C-GZCM talc samples.

Also, the range of BIR values calculated for the chrysotile refractive indexes shown in EPA's Table 2.2, supports MAS's PLM data that fibrous talc was not misidentified as chrysotile in the C-GZCM samples. The BIR calculations for the EPA's four sets of chrysotile RI measurements in their Table 2.2 are shown in MAS's Table 6.

Table 6
EPA-R63 Table 2-2 Chrysotile PLM RI Data
& Birefringence Calculations

Chrysotile RI's Direction Values	**BIR Calculations for Chrysotile**
1.517-1.493 1.557-1.546	0.024 – 0.011 **Avg. 0.018**
1.545-1.532 1.556-1.549	0.013-0.007 **Avg. 0.010**
1.537-1.529 1.567-1.559	0.008-0.008 **Avg. 0.008**
1.552-1.544 1.561-1.553	0.008-0.008 **Avg. 0.008**
Range 1.567 to 1.493	**Overall Avg. 0.011**

In that same table, EPA published a range chrysotile BIR's of 0.004 to 0.017 (Low to moderate) with an average of 0.011. This BIR range reported by EPA, was from the Maximum and Minimum values obtained from references 2, 11, 12, and 18 located in Section 2.2.

The EPA R93 protocol also provides RI and BIR data for both fibrous talc and flat cellulose ribbons that can be found in their Table 2-3. For the RI's of fibrous talc, EPA reports 1.60-1.54 with a measured BIR of 0.060, and for cellulose ribbons, the reported EPA RI's are 1.580-1.530 with a measured BIR of 0.050 as shown in Table 7.

Table 7
EPA-R93: Optical Properties of Selected Fibers
Fibrous Talc & Cellulose Ribbons

Fiber Type	RI Parallel/Perpendicular	BIR Calculations
Fibrous Talc	1.60-1.540	0.060 "High"
Cellulose Ribbons	1.580-1.530	0.050 "High"

For the EPA's fibrous talc data, this one BIR data point is in the "High" range, and that is consistent with MAS's fibrous talc calculated BIR values for the C-GZCM talc samples are in the BIR high end of the Moderate range. Also, the High BIR for cellulose demonstrates that the chrysotile was not misidentified as cellulose either.

In summary, this demonstrates that that reported chrysotile in the 18 C-GZCM samples by MAS has both the appropriate range of refractive indexes and BIR demonstrating that chrysotile asbestos was correctly identified in all 18 C-GZCM samples. Nether fibrous talc or cellulose ribbons were misidentified as chrysotile as shown by the BIR measurements.

Estimation of the Amount of Chrysotile Bundles Detected for the ISO-PLM Method

As reported in the results sections of this report, the amount of chrysotile bundles for each of three ISO-PLM sample analyses range from 85 to 123 chrysotile bundles per 90.6 mm^2 of area examined by the PLM analyst.

The amount of talcum powder sample placed on the two glass slides was determined to range from 0.0006 g to 0.0025 g (avg. 0.0014 g) on an area of 972 mm^2 (each cover slip is 18 x 18 mm in size x 3 cover slips = 972 mm^2total area) examined by the PLM analyst. This was done by weighing the two glass slides before applying the sample, then weighing the glass slides after the three talc samples are applied, but before the 1.550 RI fluid or coverslips is applied.

Total chrysotile bundles in each sample then can be calculated as shown in the following example: For sample M71179-015, there were 102 chrysotile bundles detected in 90.6 mm^2. Total area of the three cover slips is 972 mm^2.

(972 mm^2/90.6 mm^2) x 102 chrysotile bundles = 1,094 total chrysotile bundles in total sample area.

1,094 total chrysotile bundles ÷ (1.6 mg C-GZCM powder) = 683 chrysotile bundles/mg of C-GZCM sample.

683 chrysotile bundles/mg x (1000 mg/1 gram) = 683,000 chrysotile bundle per gram of C-GZCM talcum powder in sample M71179-015.

A summary of the estimated calculated chrysotile bundles per gram of C-GZCM are shown in Table 8.

Table 8
Summary of Estimated Chrysotile Bundles per gram Calculations
For the C-GZCM ISO & CSM PLM Results

MAS Sample #	ISO PLM w/o HLS Chrysotile %	Chrysotile Bundles/gram		MAS Sample #	ISO-PLM w/o with HLS Chrysotile %	Chrysotile Bundles/gram
M71179-001	0.008-0.01 103 CB*	**850,000**		M71179-010	0.007-0.01 93 CB	**768,000**
M71179-002	0.009-0.01 106 CB	**875,000**		M71179-011	0.008-0.01 104 CB	**797,000**
M71179-003	0.009-0.02 123 CB	**1,015,000**		M71179-012	0.007-0.01 92 CB	**1,234,000**
M71179-004	0.009-0.02 123 CB	**1,015,000**		M71179-013	0.008-0.01 101 CB	**656,000**
M71179-005	0.008-0.01 103 CB	**850,000**		M71179-014	0.007- 0.01 88	**1,180,000**
M71179-006	0.009-0.015 114 CB	**940,000**		M71179-015	0.008-0.01 102 CB	**683,000**
M71179-007	0.007-0.01 95 CB	**784,000**		M71179-016	0.008-0.01 102 CB	**438,000**
M71179-008	0.007-0.01 93 CB	**1,663,000**		M71179-017	0.009-0.01 111 CB	**567,000**
M71179-009	0.008-0.01 97 CB	**767,000**		M71179-018	0.007-0.009 85 CB	**570,000**

*: Number chrysotile bundles counted

Total ISO-PLM Average = 1,160,000

Determining the amount of asbestos structures in cosmetic talc has been precisely published by Dr. Blount in her 1991 peer-reviewed publication where she reported her PLM heavy liquid results in fibers or needles per mg of talc for sample I (1990 off-the-shelf JBP container). The only way one could make these types of PLM calculations, like Dr. Blount, is the procedure described above.

Potential Asbestos Exposure to C-GZCM Talc Samples

Based on our analytical results for these 18 Chanel retains from Guiguang Zhzhu, China Mine Source samples, it is my opinion within a reasonable degree of scientific certainty, that the application of Chanel N° 5 Bath Powder, or and other talcum powder product containing this

Chinese Supra H talc, by an individual would have had significant exposures over background, to both chrysotile asbestos and fibrous talc.

All of the opinions that I have stated in this report are held within a reasonable degree of scientific certainty and I reserve the right to supplement this report if any new information becomes available.

Sincerely,

William E. Longo, Ph.D.
CEO